

GP-303757

## BRAKE BY-WIRE CONTROL SYSTEM

## ABSTRACT OF THE DISCLOSURE

[0035] A brake control system for brake by wire applications having a dual fail-silent pair controller architecture. The system utilizes two supervisory controllers and a shared monitoring controller to achieve the dual fail-silent pair configuration. The brake control system also features a mechanism whereby the monitoring controller ensures the fail-silent operation of the brake control units in the event of certain undesired events occurring within the system by assuming control of the affected brake control units. The control system further assures that no single event, including an event related to the monitoring controller, causes loss of more than half the braking functionality. The control system also features additional redundancy with regard to the brake command signals by sharing a separate unprocessed brake command signal with each of the supervisory controllers and the monitoring controller.